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Examiners' Report/ Principal Examiner Feedback

June 2011

GCE Music Technology (6MT04)
Paper 01
Analysing and Producing

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General Introduction

Centres were well prepared for the examination. The vast majority of scripts arrived with complete CDs and this was an improvement upon last year. However, some CDs did not play, suggesting that centres did not test them before posting. Some were damaged in the post; centres are asked to wrap them carefully. The most common mistake was burning a data CD instead of an audio CD. Some exam papers were posted much later than the exam date. The scripts should be posted on the day of the exam.

Some candidates did not solo the tracks for tasks 1 and 2 so they could not access all of the marks.

There was a clear distinction between centres that had prepared well using mock papers and thoroughly researched music technology theory, and centres that had seemingly spent no time on the theory and had not run a mock examination. Candidates from the latter centres would not be able to access the higher grades due to insufficient detail in responses. The illegible writing of a number of candidates proved particularly surprising at A2 level. There were very few blank responses for any question.

All questions reflected a full range of responses, from 0 to full marks and everything in between, reflecting a well-judged assessment. It was common to see papers that scored high in the 70s, and also at the other extreme, fewer than 10 marks. It is thought that the paper was very fair, revealing clearly the candidate's level of ability. This is reflected in the feedback received from both teachers and examiners.

Question 1

Candidates generally scored highly throughout Question 1.

(b) This was generally well answered but the A^7 chord caught many candidates out (no C# or 5th). However, at A2 level, the number of candidates who could not name the notes of a C major or G major chord was perplexing.

(c) Most candidates found the question difficult. Marks were usually just awarded for identifying buzzwords, with hardly any candidates really understanding how subtractive synthesis works and being able to relate theory to the audio example. Candidates often referred to the wrong type of filter and in particular there was confusion between low pass and high pass. However, it was clear that in some centres candidates had a firm grasp of subtractive synthesis.

(d) This question was generally well answered but some candidates did not correct the whole bar.

Question 2

This question was aimed at differentiating the high grade candidates.

Q2(a) This question was a big differentiator and yielded varied answers. The EQ graphs varied between full marks (with really well drawn graphs) and at the other end of the spectrum, both parts (ii) and (iii) scoring 0 for erratic wavy lines or responses resembling depictions of mountain ranges. The axis labelling was the main source of marks across the cohort. A common mistake, even amongst top candidates, was the candidate not reading the question and drawing an upper mid frequency presence peak instead of a high frequency boost, as demanded by the question. However, some credit could be given for partially correct answers.

It was clear that not enough candidates had been equipped with the technical vocabulary and theory to be able to respond with any precision. Centres should endeavour to prepare candidates for this type of question via practical experimentation with software processor plug-ins, with particular enquiry into how multiple equalisation curves interact with one another. A number of candidates failed to exhibit sufficient care when drawing equalisation curves.

Q2(b) Few candidates appeared to understand the notion of signal voltage/cycles of a waveform and could accurately describe why a digital click occurs. However, a simple voltage against time graph showing a vertical displacement of voltage scored full marks for high achieving candidates.

Q2(c) Cross-fade was often answered correctly but many descriptions described a drop-out where the candidate failed to mention that the two regions of audio should overlap slightly. Only a handful of candidates came up with established alternative techniques such as editing at zero-crossing points or redrawing the waveform.

Q2(d) Many candidates were able to identify using a cross-fade to eliminate clicks in part (c), and then not actually apply it in the vocal edit, resulting in an intrusive click.

Question 3

In general, most candidates scored highly on this question. This question was designed to differentiate mainly across the low- to middle-ability candidates.

Q3(a) This synthesis question really exposed how many candidates only use presets, which is in many ways symptomatic of the software they are using; candidates just chose the nearest sounding preset which often scored some marks. The timbre that the question asked for was deliberately chosen so that no preset would sound like it. It was intended that candidates should create this sound from scratch. Another common mistake was use of the wrong octave.

Q3(b) This was an easy three marks if candidates looked at the event list editor.

Q3(c) This was an easy two marks. The note lengths just needed to be drawn in on an edit screen. Some candidates used 'legato' presets to correct the articulation and did not score full marks because the notes should have been detached.

Q3(d) Pitchbend often achieved 1 mark, but many candidates did not mention raised pitch or the lack of reset, bearing in mind it was a 3 mark question. A few candidates said "pitchshift" which is not why is was out of tune. The problem was a MIDI problem, not an effect plug-in.

Q3(e) This was an easy two marks if the candidate just deleted the pitchbend data in the bar specified in the question. Sometimes this was not corrected despite it sounding so bad in the final mix.

Question 4

This question differentiated well across the cohort. There was a full range of responses ranging from 0 marks where no relevant information had been written, to some excellent responses scoring maximum marks. The exhaustive mark scheme gave credit for all relevant knowledge and covered the range of candidate responses. Lengthy, meandering answers with little or repetitive content failed to score high marks. Candidates should be encouraged to write concisely and informatively. A candidate that had just memorised information without understanding it was unlikely to score top marks in this question because it was designed to test higher levels of understanding.

About two thirds of candidates answered 4(b).

Q4(a) More specific detail on how materials and room acoustics affect the nature of the reverberation would have led to more high-scoring candidate responses. Descriptions of natural and chamber reverberation often exhibited a lack of familiarity with the physical processes involved and plate and spring descriptions lacked an appropriate level of technical detail in regard to transducers. Less able candidates scored marks for discussing applications of reverb that they had direct experience of, for example, guitar FX pedals and software plug-ins. Candidates who traced the history of reverb from natural reverb captured with the recording, through to modern digital methods of adding reverb to a recording, scored high marks. If the candidate also gave technical explanations of how reverb devices functioned, then they could score full marks.

Q4(b) A few responses focused on superfluous historical detail that did not go any way to answering the question. Such detail scored no marks. Also, some candidates did not read the question correctly and identified drawbacks of dynamic and condenser microphones when they were supposed to explain benefits. A handful of candidates gave exemplary answers, but unfortunately got 'dynamic' and 'condenser' the wrong way around so very limited credit could be given. Candidates who could identify the benefits of each type of microphone, usually linked to their practical

experience, and could describe with some understanding how they work as transducers, scored full marks.

Question 5

This question had a good range of editing, processing and effects-based tasks to cater for a wide range of candidate ability and knowledge. Many candidates scored full marks in Question 5. However, some entire centres did not complete the gating or filter question, showing a gap in their teaching.

Candidates should answer the question and not add other panning, dynamic processing, EQ and effects not specified in the question. There were some very strange mixes submitted including a candidate who combined all the audio tracks into 22 seconds of mayhem; all of the audio tracks were out of sync, swimming in reverb and manically moving around the stereo field. Other strange mixes that could not score many marks were just the drums soloed for all three tasks and one bar of mix only for task 3.

Q5(a) This question yielded a good variety of responses. A number of candidates gated the part correctly but needed to set the parameters more carefully to minimise false triggers or the cutting of note transients. However, if a candidate attempted this question, they usually scored full marks. This was simple to achieve if the candidate had a basic grasp of the controls of a gate.

Q5(b) Many candidates did not attempt this question. A few candidates applied the wrong kind of filter so limited credit could be given. Many candidates achieved this effectively; it is usually the first thing that many candidates into dance music want to know how to do!

Q5(c) Panning was generally done well across most of the cohort.

Q5(d) There were a large number of 'swamped' efforts this year, perhaps suggesting inexpensive headphones being used (which are more forgiving in terms of reverb depth) or a lack of familiarity with the use of auxiliary sends - opposed to inserts - within the software. However mid- to top-end ability candidates produced musical results.

Q5(e) This year, candidates could not 'luck into' an adequate balance because the synth pad was deliberately mastered at a very high volume compared with the other audio so that candidates needed to turn it down. The most common errors in the balance was the synth being too loud, masking the vocals and drums.

Q5(f) There were a very few extremely poor mixes, with synchronisation problems most often caused by not following the 'setting up time' instructions. The timing and pitch errors with the main track at the end indicated that some candidates had very little aural awareness. Even amongst top candidates who had otherwise scored full marks for Question 5, a large number of submissions had cut reverb tails. It was disappointing to see marks lost for such a truly fundamental error.

Centres should refer to the *Administrative Support Guide* (formerly *Instructions for the Conduct of the Examinations* document) that is available on the GCE Music Technology website under *Assessment Materials/ Instructions for the Conduct of the Examinations*.
This document should be read in conjunction with the Specification.

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